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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,650	12/30/2003	Lee Delson Wilhelm	19,927	6898
23556	7590	05/30/2008		
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AFZAL, SARANG				
ART UNIT		PAPER NUMBER		
3726				
MAIL DATE		DELIVERY MODE		
05/30/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/748,650  
Filing Date: December 30, 2003  
Appellant(s): WILHELM, LEE DELSON

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Gregory E. Croft  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/25/2008 appealing from the Office action mailed 1/28/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2004/019911	Boegli	6-2004
2002/0007749	Makoui et al.	1/2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9, 10, 12, 13, 15, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boegli (US 2004/0109911).

As applied to claims 1 and 2, Boegli teaches an apparatus (1, Fig. 1) comprising: a surface containing at least one elongated embossing element (a first embossing roll 2, Fig. 1) having a top comprising a flat surface having a width (truncated pyramid tooth profiles 8 with flat top surface, Fig. 3B); the embossing element having a first sidewall

with a first angle and an opposite second sidewall with a second angle wherein each of the first and second sidewalls has a length perpendicular to the width of the top surface (Fig. 3b). Note that Boegli teaches (paragraph [0038]) that there are two embossing rolls 2 in the apparatus 1, therefore meeting the claim 2 limitations of a pair of first sidewalls and a pair of second sidewalls.

Boegli further teaches (paragraph [0035]) that:

*"The production of inscriptions, devices, and the like, hereinafter called patterns, is realized by removing or shortening teeth on the embossing roll 2 that comprises teeth 8. The rings resp. longitudinal ribs may influence the appearance of the embossed patterns produced by means of the embossing roll provided with the teeth. Through variations of the teeth 8 or of rings 10 or longitudinal ribs 12, i.e. by modifications of the height, of the flanks or the edges of the teeth, the rings, or the longitudinal ribs, or through patterns provided on the upper surface thereof, the embossing roll combinations of the invention allow to produce embossed patterns or signs generating a particular optical effect such that the embossed pattern changes as it is viewed from different angles and/or under different lighting conditions or only appears under a certain angle and/or under certain lighting conditions. To this effect, the height of the teeth, of the rings or of the longitudinal ribs may be varied, or the design of individual teeth, of entire rings or of parts thereof, and of entire ribs or of parts thereof may differ from that of the remaining elements."*

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have provided Boegli with the claimed length of "0.06 inch" and first and second opposing sidewall angles with different values, in order to provide a desired embossed appearance and effect.

Boegli teaches that the tooth profile can be modified into a variety of configuration resulting in any desired embossed patterns that would be viewed differently under certain conditions. This would encompass forming the truncated pyramid shaped teeth to have a more conventional curvilinear shape. Note that the Appellant's objective is to improve the appearance or embossing definition produced in

the substrate by the embossing process (specification, page 1, lines 30-31). As such Boegli teaches that the viewing of the embossed patterns under certain conditions (lighting and angle) can be improved.

Regarding the limitation of "elongated curvilinear embossing element",

As applied to claim 3, Boegli teaches that the embossing surface comprises a male (truncated profiles 8, Fig. 3B) embossing element.

As applied to claims 4-7, 9, 10, 12, 13, 15, 16 and 20, Boegli teaches the claimed invention with the exception of explicitly teaching the specific claimed sidewall angles, gap dimensions and top radius.

Boegli teaches that the tooth profile can be modified into a variety of configuration (meaning different sidewall angles and gap dimensions and radiuses) resulting in any desired embossed patterns. Therefore, it would have been an obvious matter of design choice to a person of ordinary skill in the art, at the time of the invention, to have provided Boegli with the claimed sidewall angles, gap dimensions and top radiuses, in order to provide a patterned surface having the desired characteristics.

Claims 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boegli (US 2004/0109911) in view of Makoui et al. (US 2002/0007749).

Boegli teaches the claimed invention but does not explicitly teach the claimed metal roll.

However, it is well known in the art to use metal alloys in an embossing roll. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have provided the embossing surface of the Boegli's element with a suitable metal alloy as taught by Makoui et al. in order to provide a desired embossed pattern on an article.

#### **(10) Response to Argument**

The Appellant's main arguments are that Boegli does not teach an embossing roll surface having elongated curvilinear embossing elements and that the truncated pyramid-shaped teeth taught by Boegli are not elongated and are not curvilinear and that if unique embossing shapes are desired, the sketchy teachings of Boegli appear to suggest that certain teeth be modified or eliminated so the sum total of the teeth produces the desired effect.

The Appellant further argues that Boegli does not teach or suggest different first and second sidewall angles as claimed by Appellant. In addition, the Appellant argues that the claimed embossing element design provides an unexpected result in that one of ordinary skill, reading the teachings of Boegli, would not expect that providing elongated curvilinear embossing elements with a flat top surface and different sidewall angles would provide improved embossing clarity and definition.

The Appellant further argues that with specific reference to Appellant's independent claim 2, there also is no suggestion in the teachings of Boegli to provide a split embossing element having a gap as claimed. The truncated pyramid elements of

Boegli do not have a gap, but instead have a flat top surface and that in addition to the obvious structural differences between the truncated pyramid embossing elements of Boegli and the elongated curvilinear embossing elements of Appellant's invention, the apparatus of Boegli is intended for an entirely different purpose than that of Appellant's apparatus and that what might be an obvious matter of design choice for purposes of Boegli would not be useful or relevant for Appellant's apparatus, which is designed for a very different purpose.

The Examiner respectfully disagrees with the above arguments. Note that Boegli in paragraph [0035], lines 6-12, clearly teaches that through variations of the teeth (8), i.e. by modifications of height (emboss element depth), of the flanks (side walls) or the edges (width and length of the top flat surface) of the teeth or through patterns provided on the upper surface thereof, desired embossed patterns may be produced. Boegli further teaches in paragraph [0035], lines 16-20, that the design of individual teeth may differ from that of the remaining elements. As such, the Examiner considers that the emboss elements of Boegli can be in shapes other than truncated pyramids. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have provided Boegli with the profile details as claimed by the Appellant in order to provide a desired embossed patterns and appearance. Furthermore, the embossing element of Boegli et al. is considered elongated (having any length) and it would have been obvious to one of ordinary skill in the art at the time of invention to have modified any of the elongated truncated pyramid-shaped teeth of any embossing elements of



Boegli et al. into a more suitable conventional curvilinear shape in order to provide desired embossed patterns and appearance on any suitable material.

As for the argument that the apparatuses of Appellant and Boegli are intended for entirely different purposes, the Examiner believes that Boegli teaches that the tooth profile can be modified into a variety of configuration resulting in any desired embossed patterns that would be viewed differently under certain conditions. Furthermore, the Appellant's objective is to improve the appearance or embossing definition produced in the substrate by the embossing process (specification, page 1, lines 30-31). Boegli teaches that the viewing of the embossed patterns under certain conditions (lighting and angle) can be improved. As such, Boegli is pertinent to the problem with which the instant invention was concerned with, which is mainly to improve the appearance or embossing definition produced by the embossing apparatus. Finally, it is noted that the particular use of Appellant's embossing roll is not currently claimed.

As for the secondary reference, since the Appellant has not provided any detailed argument, the Examiner still relies on Makoui et al., to teach that it is well known to use metal alloys in an embossing roll.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 3726

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Sarang Afzali

/Sarang Afzali/

Examiner, Art Unit 3726

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TQAS TC 3700